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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,800	03/12/2004	Sander Jurgen Roosendaal	NL010603B	8307

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EXAMINER

NGUYEN, HOAN C

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,800

Applicant(s)

ROOSENDAAL ET AL.

Examiner

HOAN C. NGUYEN

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) 15,16,19,20,25,26,29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-14,17,18,21-24,27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION


In view of the Appeal Brief filed on 2/18/2006, PROSECUTION IS HEREBY REOPENED. New Ground Rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 11-14, 17-18, 21, 23-24, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Moseley et al. (US6046849A).

In regard to claim 11, Moseley et al. teach (Figs. 5-21 and 23) a patterned optical layer (a polarization modifying layer 20) comprising a film that includes a pattern of first area segments and second area segments (regions 22 and 24 as Fig. 5 shown), wherein

- the first area segments provide a first optical retardation;
- the second area segments provide a second optical retardation.
- the patterned optical layer 20 is formed by following methods as shown in Figs. 15-17 and 19-20. Figure 15 shows retarder 63 and planarization layer 65 having different optical retardation. Figure 16 shows retarder 63 and isotropic film 66 having different optical retardation. Figure 17 shows the twisted retarder 68 and isotropic film 66 having different optical retardation. Figures 19-20 shows the retarder at the alignment layer A & B having different optical retardation. Thus the second optical retardation is different from the first optical retardation, thereby one of area segments should be substantially less than the other.

wherein

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Claim 12:

- the pattern provides for pairs of adjacent first area segments and second area segments.

Claim 13:

- the pattern provides of a two-dimensional array of pairs of adjacent first area segments and second area segments.

Claim 14:

- the two-dimensional array of pairs corresponds to an array of pixels in a display device (col. 12 col. 42-45)

Claim 17:

- the first area segments include a first polymerized liquid crystal material having a planar orientation at a first angle; and the second area segments include a second polymerized liquid crystal material having a planar orientation at a second angle, the first angle being substantially different from the second angle as shown in Fig. 23.

Claim 18:

- a difference between the first angle and the second angle is approximately 45 degrees as shown in Fig. 23.

In regard to claim 21, Moseley et al. teach (Figs. 5-21 and 23) a transfective display device comprising:

- a plurality of pixels, and

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- a patterned optical layer (a polarization modifying layer 20) that includes a pattern of pairs of first area segments (region 24 as Fig. 5 shown, the polarization modifying layer 20 is formed by following methods as shown in Figs. 15-17 and 19-20) and second area segments (region 22), each pair of the plurality of pairs corresponding to each pixel of the plurality of pixels (a pixel is combination of the regions 22 and 24), Thus the second optical retardation is different from the first optical retardation, thereby one of area segments should be substantially less than the other.

wherein

Claim 23:

- a pair of polarizing layers (an exist polarizer and a polarizer on LCD 1 near backlight 3 as Fig. 21 shown) that sandwich the pixels and the patterned optical layer.

Claim 24:

- a liquid crystal display LCD has each pixel must inherently including liquid crystal material sandwiched between electrodes for manipulating light transmitting through liquid crystal layer.

Claim 27:

- the first area segments include a first polymerized liquid crystal material having a planar orientation at a first angle; and the second area segments include a second polymerized liquid crystal material having a planar orientation at a

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second angle, the first angle being substantially different from the second angle as shown in Fig. 23.

Claim 28:

- a difference between the first angle and the second angle is approximately 45 degrees as shown in Fig. 23.

The below reference of May (US5548427A) uses the following physical property is disclosed by Miller et al. (US5892612A): The retarders with fast-axes of retardation at different angles have different optical retardation value.

2. Claims 11-14, 17-18, 21, 23-24, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by May (US5548427A).

In regard to claim 11, May teach (Figs. 1-4) a patterned optical layer (a patterned retarder 4) comprising a film that includes a pattern of first area segments 4a and second area segments 4b wherein

- the first area segments with half-wave having fast-axes of retardation at angle of 22.5° provide a first optical retardation;
- the second area segments with half-wave having fast-axes of retardation at angle of -22.5° provide a second optical retardation,
- each area segment has different fast-axes of retardation, thus the second optical retardation is different from the first optical retardation, thereby one of area segments should be substantially less than the other.

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wherein

Claim 12:

- the pattern provides for pairs of adjacent first area segments and second area segments.

Claim 13:

- the pattern provides of a two-dimensional array of pairs of adjacent first area segments and second area segments.

Claim 14:

- the two-dimensional array of pairs corresponds to an array of pixels in a display device.

Claim 17:

- the first area segments include a first polymerized liquid crystal material (FCL) having a planar orientation at a first angle; and the second area segments include a second polymerized liquid crystal material (FCL) having a planar orientation at a second angle, the first angle being substantially different from the second angle (col. 3 line 61 to col. 4 line 5).

Claim 18:

- a difference between the first angle and the second angle is approximately 45 degrees.

In regard to claim 21, Moseley et al. teach (Figs. 1-4) a transflective display device comprising:

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- a plurality of pixels, and
- a patterned optical layer (a patterned retarder 4) that includes a pattern of pairs of a first area segments 4a with half-wave having fast-axes of retardation at angle of 22.5° and second area segments 4b with half-wave having fast-axes of retardation at angle of -22.5° , each pair of the plurality of pairs corresponding to each pixel of the plurality of pixels, each area segment has different fast-axes of retardation, thus the second optical retardation is different from the first optical retardation, thereby one of area segments should be substantially less than the other.

wherein

Claim 23:

- a pair of polarizing layers 2 & 6 that sandwich the pixels and the patterned optical layer.

Claim 24:

- a liquid crystal display LCD has each pixel must inherently including liquid crystal material sandwiched between electrodes for manipulating light transmitting through liquid crystal layer.

Claim 27:

- the first area segments include a first polymerized liquid crystal material (CFL) having a planar orientation at a first angle; and the second area segments include a second polymerized liquid crystal material (CFL) having a planar

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orientation at a second angle, the first angle being substantially different from the second angle (col. 3 line 61 to col. 4 line 5).

Claim 28:

- a difference between the first angle and the second angle is approximately 45 degrees.

3. Claims 11-14 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by lino (US20030001994A1).

In regard to claim 21, Moseley et al. teach (Figs. 1-4) a transfective display device comprising:

- a plurality of pixels, and
- a patterned optical layer 141/142 that includes a pattern of pairs of a first area segments 141 made of cholesteric liquid crystal (CLC) and second area segments 142 made of resin, each pair of the plurality of pairs corresponding to each pixel of the plurality of pixels, each area segment has different materials (CLC & resin) and different thickness, thus the second optical retardation is different from the first optical retardation, thereby one of area segments should be substantially less than the other.

wherein

Claim 12:

- the pattern provides for pairs of adjacent first area segments and second area segments.

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Claim 13:

- the pattern provides of a two-dimensional array of pairs of adjacent first area segments and second area segments.

Claim 14:

- the two-dimensional array of pairs corresponds to an array of pixels in a display device.

Claim 22:

- the first area segment of each pixel corresponds to a reflective portion with light shielding layer 143 under CLC layer 142 and the second area segment of each pixel corresponds to a transmissive portion with color filter 142.

Claim 23:

- a pair of polarizing layers 105&108 that sandwich the pixels and the patterned optical layer.

Claim 24:

- a liquid crystal display LCD has each pixel must inherently including liquid crystal material 51 sandwiched between electrodes 14 & 21.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim H. Robert can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HOAN C. NGUYEN
Examiner
Art Unit 2871

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ANDREW SCHECHTER
PRIMARY EXAMINER